PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	)	
	)	For: METHOD AND APPARATUS FOR MONITORING A CHANNEL DURING AN ACTIVE SESSION IN A WIRELESS COMMUNICATION SYSTEM
Turner	)	
	)	
	)	
Serial No. 10/075,058	)	
	)	
Filed: February 11, 2002	)	Group No. 2416

BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 223 13-1450

Sir:

This amended Appeal Brief is submitted in response to the Notification of Non-Compliant Brief (37 C.F.R. § 41.37) dated February 27, 2009. The original Brief was filed on January 30, 2009. Appellant hereby appeals from the Primary Examiner's rejections of claims 1-31.

The fees required under § 41.20(b)(2) should be charged to Deposit Account No. 17-0026.

This brief contains items under the following headings as required by C.F.R. § 41.37 and M.P.E.P. § 1206:

I. Real Party in Interest
II. Related Appeals and Interferences
III. Status of Claims
IV. Status of Amendments
V. Summary of Claimed Subject Matter
VI. Grounds of Rejection to be Reviewed on Appeal
VII. Argument
VIII. Claims
IX. Evidence
X. Related Proceedings
Appendix A. Claims
Appendix B: Evidence
Appendix C: Related Proceedings

I. Real Party in Interest

The real party in interest for this Application is Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, California 92121.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 1-31 are pending. Claims 1, 10, 16, 17, 27, and 31 are independent. Claims 1-31 are rejected and are on appeal.

IV. Status of Amendments

No amendments have been submitted subsequent to the issuance of the Final Office Action dated 9/5/2008. Accordingly, there are no un-entered amendments to the claims.

V. Summary of the Claimed Subject Matter

Claim 1 is directed to a method of conducting wireless data communications **(see, e.g., FIG. 13A)** comprising: receiving a packet data transmission from a first wireless network **(see, e.g., paragraph [0043] and block T100)**; transmitting a pause command to the first wireless network **(see, e.g., paragraph [0035] and block T200)**; reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a

second wireless network **(see, e.g., paragraph [0042] and block T252)**; monitoring a paging channel of the second wireless network **(see, e.g., paragraph [0035] and block T300)**; reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network **(see, e.g., paragraph [0042] and block T352)**; and transmitting a resume command to the first wireless network **(see, e.g., paragraph [0035] and block T400)**.

Claim 10 is directed to a method of conducting wireless data communications **(see, e.g., FIG. 12)** comprising: receiving a packet data transmission from a first wireless network over a first wireless channel **(see, e.g., paragraph [0043] and block T100)**; transmitting a pause command to the first wireless network **(see, e.g., paragraph [0035] and block T200)**; and monitoring a second wireless channel for transmissions from a second wireless network, wherein said monitoring occurs after said transmitting begins **(see, e.g., paragraph [0035] and block T300)**.

Claim 16 is directed to a data storage medium having machine-readable code **(see, e.g., paragraph [0058])**, the machine-readable code including instructions executable by an array of logic elements, said instructions defining a method of conducting wireless data communications **(see, e.g., FIG. 13A)** comprising: receiving a packet data transmission from a first wireless network **(see, e.g., paragraph [0043] and block T100)**; transmitting a pause command to the first wireless network **(see, e.g., paragraph [0035] and block T200)**; reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network **(see, e.g.,**

paragraph [0042] and block T252); monitoring a paging channel of the second wireless network **(see, e.g., paragraph [0035] and block T300)**; reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network **(see, e.g., paragraph [0042] and block T352)**; and transmitting a resume command to the first wireless network **(see, e.g., paragraph [0035] and block T400)**.

Claim 17 is directed to an access terminal configured and arranged to receive packet data transmissions from a first wireless network **(see, e.g., access terminal 200 of FIG. 16)**, said access terminal comprising: a timer configured and arranged to send an indication at a time near a start of a paging slot **(see, e.g., paragraph [0046] and timer 220)**; a command generator configured and arranged to issue a pause command in response to the indication **(see, e.g., paragraph [0046] and command generator 230)**; a physical layer control unit configured and arranged to transmit the pause command to the first wireless network **(see, e.g., paragraph [0046] and physical layer control unit 210)**; and a monitor configured and arranged to monitor a paging channel during the paging slot for transmissions transmitted by a second wireless network at least to the access terminal **(see, e.g., paragraph [0051] and monitor 240)**, wherein the physical layer control unit is further configured and arranged to transmit a resume command to the first wireless network at a time near an end of the paging slot **(see, e.g., paragraph [0048])**.

Claim 27 is directed to an access terminal configured and arranged to receive data transmissions from a first wireless network **(see, e.g., access terminal 200 of FIG. 17)**, said access terminal comprising: a timer configured and arranged to send

an indication at a time near a start of a time slot **(see, e.g., paragraph [0053] and timer 320)**; a command generator configured and arranged to issue a pause command in response to the indication **(see, e.g., paragraph [0053] and command generator 330)**; and a monitor configured and arranged to monitor a channel during the time slot for transmissions transmitted by a second wireless network at least to the access terminal **(see, e.g., paragraph [0051] and monitor 240)**, wherein the command generator is further configured and arranged to issue a resume command at a time near an end of the time slot, and wherein the pause command and the resume command are transmitted to the first wireless network **(see, e.g., paragraph [0055])**.

Claim 31 is directed to a wireless apparatus comprising: means for receiving a packet data transmission from a first wireless network **(see, e.g., paragraph [0046] and physical layer control unit 210)**; means for transmitting a pause command to the first wireless network **(see, e.g., paragraph [0046] and physical layer control unit 210)**; means for reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network **(see, e.g., paragraph [0047] and timer 220)**; means for monitoring a paging channel of the second wireless network **(see, e.g., paragraph [0051] and monitor 240)**; means for reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network **(see, e.g., paragraph [0048] and timer 220)**; and means for transmitting a resume

command to the first wireless network **(see, e.g., paragraph [0048] and physical layer control unit 210).**

VI. Grounds of Rejection to be Reviewed on Appeal

The Examiner has finally rejected: claims 1-3, 5, 6, 8-24, and 26-31 under 35 U.S.C. § 103 (a) as allegedly being unpatentable over U.S. Patent 6,937,861 to Vanghi (hereinafter "Vanghi") in view of U.S. Patent 6,269,402 to Lin et al. (hereinafter "Lin"); and claims 4, 7, and 25 under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Vanghi in view of Lin, and in further view of U.S. Patent 6,487,399 to Rajaniemi et al. (hereinafter "Rajaniemi"). Each of the items raised is addressed below.

VII. Argument

A. The rejection of claims 1-3, 5, 6, 8-24, and 26-31 in view of Vanghi and Lin is improper.

(1) The Vanghi and Lin references, either alone or in combination, fail to explicitly or inherently teach or fairly suggest transmitting a pause command to the first wireless network as recited in each of the independent claims 1, 10, 16, 17, 27 and 31.

Appellant's claimed combinations are directed to conducting wireless data communications at least initially over a first wireless communication network. Independent claims 1, 10, 16, 17, 27 and 31 each further recite, in part, "*transmit[ting] [a] pause command to the first wireless network.*" The Examiner acknowledges that Vanghi does not teach this feature of the independent claims.[1]

[1] Final Office Action dated 9/5/2008 at pg. 4.

However, Appellant disagrees with the Examiner's assertion that this feature is taught in Lin.[2]

Lin is directed to transitioning communication between a client and a server from a first bearer network to a second bearer network.[3] Lin teaches establishing a first communication session between a client and a server over a first bearer network, the packets using a first envelope identifier.[4] At some time later, the first connection is suspended/terminated, and a second connection is initiated between the same client and server on a second bearer network, the packets now using a second envelope identifier.[5] After the second connection is established, a session transition control block is used to map messages or packets received after the suspension/transition to the second connection with a second envelope identifier.[6]

In the rejection, the Examiner notes:

> The first connection is terminated in response to a suspension request transmitted between network entities (see fig.5, step 512; co1.5, lines 55-62) such as between the client 102 and the server 104 (see col.5, lines 15-30). After the interruption has occurred, (at fig.5; step 516, co1.6, lines 12-20), the connection may resume by issuing a resume command over the second bearer network.[7]

As the Examiner correctly notes, the first connection is terminated in response to the suspension request. The 'suspension' effectively queues data at the server until it can be sent using a second connection yet to be established. Accordingly, Appellant submits that the suspension request of Lin pointed to by the Examiner is

---

[2] *Id.*
[3] See, e.g., Lin at Abstract.
[4] *Id.* at col. 5, lines 47-55, and steps 506-508.
[5] *Id.* at col. 5, lines 59-63, and step 512.
[6] *Id.* at col. 6, lines 31-44.
[7] Final Office Action dated 9/5/2008 at pg. 3, second paragraph.

not equivalent to the claimed pause command. The suspension request of Lin permanently terminates the first connection over the first bearer link. In contrast to the claimed invention, Lin merely describes transitioning between a first and second link connecting the same client and server, not pausing one link that is later resumed. In Lin, the suspended link is never resumed. Resuming communications in Lin is done through the second bearer link, not the first bearer link. Thus, there is no 'pause' of a first communication in the sense that it will later be resumed (as in the claimed invention), but merely a termination of the first link in favor of a second link.

In the Response to Arguments section of the Final Office Action dated 9/5/2008, the Examiner states:

> It is believed that Lin discloses transmitting a pause command to the first network (fig.5, step 512, col.5, lines 57-62 and lines 22-30; initiating a session suspension of the first bearer network by a client) and reestablishing a second connection via a second bearer network by issuing a resume command (see col.6, lines 13-24).[8] (Emphasis added.)

The Examiner appears to be arguing that because Lin teaches temporarily suspending a communication session, the message used to effectuate that suspension can be considered a pause command. Appellant disagrees that such an interpretation is consistent with the term "pause command" as used in the claimed invention. In Lin, a communication session between a client device and a server initially proceeds over a first network connection. When the first network connection is no longer viable, the communication session is suspended and a second network connection is arbitrated. Subsequently, the communication session between the client and server resumes using the second network connection. Accordingly, when

---

[8] Final Office Action dated 9/5/2008 at pg. 2.

Lin states that the first connection is suspended/terminated, Lin means that the communication session (between client and server) is suspended and the first network connection (between client and first network) is terminated. That is, it is the communication session that is suspended, not the first network connection. The Examiner's statement highlighted above that Lin initiates a "session suspension" of the "first bearer network" is therefore inaccurate; the communication session is suspended, but the first bearer network connection is terminated, not paused.

As further evidence, Appellant points to col. 6, lines 20-23 of Lin, which discloses two network connection options for resuming the suspended communication session. Here, Lin states "[t]he session may be resumed over a different over a different [sic] bearer network, or the session may be established over the same bearer network but with different network parameters." (Emphasis added.) As is clearly shown here, the first network connection is not simply paused and resumed, but a completely new network connection "with different network parameters" must be established if the communication is session is to be resumed over the first bearer network.

In contrast, claim 1, for example, in its broader context recites "transmitting a pause command to the first wireless network... [and] transmitting a resume command to the first wireless network." Although Lin stops and later resumes a communication session between a client and server, the first network connection itself is not resumed. Lin as applied cannot teach "pausing" a network connection that is never actually, or even intended to be, resumed, and therefore cannot teach transmitting a pause command to the first wireless network in the manner of the claimed invention.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Neither Vanghi nor Lin, nor the combination of these references, teach or suggest the features of Appellant's claimed combinations as noted above. Therefore, these references do not render Appellant's claimed combinations obvious as alleged by the Examiner.

(2) The proposed combination of the Vanghi and Lin references is improper.

As discussed above, Lin teaches terminating a first connection in favor of a second connection. As pointed out by the Examiner, a suspension request sent by a network entity effectively terminates that connection in Lin.[9] In contrast, Vanghi teaches momentarily suspending communication with a first radio network, so that it can briefly communicate with a second radio network, then resuming communication with the first radio network.[10] Thus, if the teachings of Lin were applied to those of Vanghi as in the proposed modification by the Examiner, Vanghi would actually terminate the first radio network connection before briefly communicating with the second radio network. Vanghi would therefore be rendered unsatisfactory for its intended purpose of thereafter continuing communication with the first radio network without having to completely re-establish such a connection. If a proposed modification would render the reference's invention being modified unsatisfactory for

[9] Final Office Action dated 9/5/2008 at pg. 4, second paragraph.

its intended purpose, then there is no suggestion or motivation to make the proposed modification. *See* In re Gordon, 733 F.2d 900, 221, USPQ 1125 (Fed. Cir. 1984), *see also* MPEP § 2143.01.

Furthermore, the principle of operation of the connection management invention disclosed in Vanghi is to control access to network resources based on whether access terminal 14 has or has not exceeded the maximum allowed period of inactivity as determined by a fade timer.[11] In Vanghi, the access terminal 14 does not inform the radio network 22 that it is momentarily suspending its connection, but rather leaves it up to the radio network 22 to detect a loss of signal to initiate the fade timer.[12] If no fade timer is initiated, as would presumably be the case under the proposed modification where a pause command would instead be explicitly issued, access terminal 14 would not be able to track the fade timer, and the fade timer tracking techniques of the invention described in Vanghi would be rendered unsatisfactory for their intended purpose. As noted above, if a proposed modification would render the reference's invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Moreover, if the fade timer tracking techniques underlying the principle of operation of Vanghi were ignored, and instead, a pause/resume command signal principle of operation employed as proposed by the Examiner, the proposed modification would change the principle of operation of Vanghi. If the proposed modification of a reference would change the principle of operation of the reference's

---

[11] See, e.g., Vanghi at Abstract.
[12] See, e.g., Vanghi at col. 5, line 59 through col. 6, line 7.

invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *See* In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959), *see also* MPEP § 2143.01. *See also*, the KSR Guidelines requiring that "each element merely would have performed the same function as it did separately."

Accordingly, Vanghi in view of Lin cannot render as obvious, under 35 U.S.C. §103, Appellants' invention as presently claimed in independent claims 1, 10, 16, 17, 27 and 31 because the proposed combination of those references is improper. The Examiner's proposed combination both renders the invention described in Vanghi unsatisfactory for its intended purpose and changes its principle of operation.

(3) Dependent Claims 2, 3, 5, 6, 8, 9, 11-15, 18-24, 26, and 28-30.

Appellant also respectfully submits that dependent claims 2, 3, 5, 6, 8, 9, 11-15, 18-24, 26, and 28-30, which all depend either directly or indirectly from independent claims 1, 10, 16, 17, 27 and 31, are patentable for at least the same reasons as the independent claims from which they depend.

B. The rejection of dependent Claims 4, 7, and 25 in view of Vanghi, Lin, and Rajaniemi is improper.

Rajaniemi as applied fails to cure the deficiencies of Vanghi and Lin discussed above with regard to independent claims 1 and 17. Thus, Appellant also respectfully submits that dependent claims 4, 7, and 25, which each depend either

---

[12] *Id.*

directly or indirectly from independent claims 1 and 17, are patentable for at least the same reasons as the independent claims from which they depend.

VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132, or entered by or relied upon by the Examiner is being submitted.

X. RELATED PROCEEDINGS

None.

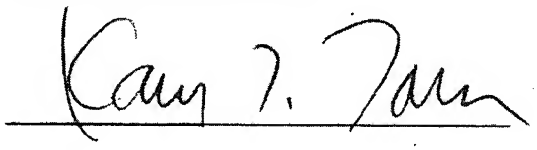
CONCLUSION

Appellants respectfully submit that claims 1-31 are patentable over the applied art and that all of the rejections and objections of record should be reversed.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 17-0026 for any additional fees required under 37 C.F.R. § 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

Dated: March 24, 2009

By: 

Kam T. Tam
Registration No. 35,756

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502

APPENDIX A: CLAIMS

1. A method of conducting wireless data communications comprising:

receiving a packet data transmission from a first wireless network;

transmitting a pause command to the first wireless network;

reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network;

monitoring a paging channel of the second wireless network;

reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network; and

transmitting a resume command to the first wireless network.

2. The method of conducting wireless data communications according to claim 1, wherein transmitting a pause command to the first wireless network includes transmitting a pause command to a packet data serving node via the first wireless network, and

wherein transmitting a resume command to the first wireless network includes transmitting the resume command to the packet data serving node via the first wireless network.

3. The method of conducting wireless data communications according to claim 2, wherein receiving a packet data transmission from a first wireless network

includes receiving a packet data transmission from the packet data serving node via the first wireless network.

4. The method of conducting wireless data communications according to claim 1, wherein reconfiguring the receiver includes changing a frequency of a radio-frequency stage.

5. The method of conducting wireless data communications according to claim 1, wherein the pause command includes a command to reduce a data rate.

6. The method of conducting wireless data communications according to claim 1, wherein the pause command includes a command to set a null data rate.

7. The method of conducting wireless data communications according to claim 6; wherein reconfiguring the receiver includes changing a frequency of a radio-frequency stage.

8. The method of conducting wireless data communications according to claim 6, wherein the resume command includes a command to set a non-null data rate.

9. The method of conducting wireless data communications according to claim 1, wherein the resume command includes a command to set a non-null data rate.

10. A method of conducting wireless data communications comprising:

receiving a packet data transmission from a first wireless network over a first wireless channel;

transmitting a pause command to the first wireless network; and

monitoring a second wireless channel for transmissions from a second wireless network,

wherein said monitoring occurs after said transmitting begins.

11. The method of conducting wireless data communications according to claim 10, further comprising transmitting a resume command to the first wireless network, wherein said monitoring occurs between said transmitting a pause command and said transmitting a resume command.

12. The method of conducting wireless data communications according to claim 11, wherein the pause command includes a command to set a null data rate.

13. The method of conducting wireless data communications according to claim 12, wherein the resume command includes a command to set a non-null data rate.

14. The method of conducting wireless data communications according to claim 10, wherein the pause command includes a command to set a null data rate.

15. The method of conducting wireless data communications according to claim 14, wherein the resume command includes a command to set a non-null data rate.

16. A data storage medium having machine-readable code, the machine-readable code including instructions executable by an array of logic elements, said instructions defining a method of conducting wireless data communications comprising:

receiving a packet data transmission from a first wireless network;

transmitting a pause command to the first wireless network;

reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network;

monitoring a paging channel of the second wireless network;

reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network; and

transmitting a resume command to the first wireless network.

17. An access terminal configured and arranged to receive packet data transmissions from a first wireless network, said access terminal comprising:

a timer configured and arranged to send an indication at a time near a start of a paging slot;

a command generator configured and arranged to issue a pause command in response to the indication;

a physical layer control unit configured and arranged to transmit the pause command to the first wireless network; and

a monitor configured and arranged to monitor a paging channel during the paging slot for transmissions transmitted by a second wireless network at least to the access terminal,

wherein the physical layer control unit is further configured and arranged to transmit a resume command to the first wireless network at a time near an end of the paging slot.

18. The access terminal according to claim 17, wherein the indication includes an interrupt request signal.

19. The access terminal according to claim 17, wherein the command generator is further configured and arranged to issue the resume command.

20. The access terminal according to claim 17, wherein the pause command includes a command to set a null data rate.

21. The access terminal according to claim 20, wherein the resume command includes a command to set a non-null data rate.

22. The access terminal according to claim 17, wherein the pause command is directed to a packet data serving node.

23. The access terminal according to claim 22, wherein the resume command is directed to the packet data serving node.

24. The access terminal according to claim 17, wherein the physical layer control unit is further configured and arranged to receive the packet data transmissions from the first wireless network over a traffic channel, and

wherein, near a start of the paging slot, a mode of the physical layer control unit is changed from a mode corresponding to the traffic channel to a mode corresponding to the paging channel.

25. The access terminal according to claim 24, wherein the physical layer control unit includes a radio-frequency stage, and

wherein changing a mode of the physical layer control unit includes changing a frequency of the physical layer control unit.

26. The access terminal according to claim 24, wherein, near an end of the paging slot, a mode of the physical layer control unit is changed from the mode corresponding to the paging channel to the mode corresponding to the traffic channel.

27. An access terminal configured and arranged to receive data transmissions from a first wireless network, said access terminal comprising:

a timer configured and arranged to send an indication at a time near a start of a time slot;

a command generator configured and arranged to issue a pause command in response to the indication; and

a monitor configured and arranged to monitor a channel during the time slot for transmissions transmitted by a second wireless network at least to the access terminal,

wherein the command generator is further configured and arranged to issue a resume command at a time near an end of the time slot, and

wherein the pause command and the resume command are transmitted to the first wireless network.

28. The access terminal according to claim 27, wherein the pause command includes a command to set a null data rate.

29. (Original) The access terminal according to claim 28, wherein the resume command includes a command to set a non-null data rate.

30. The access terminal according to claim 27, wherein the indication includes an interrupt request signal.

31. A wireless apparatus comprising:

means for receiving a packet data transmission from a first wireless network;

means for transmitting a pause command to the first wireless network;

means for reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network;

means for monitoring a paging channel of the second wireless network;

means for reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network; and

means for transmitting a resume command to the first wireless network.

APPENDIX B: EVIDENCE

(None)

APPENDIX C: RELATED PROCEEDINGS

(None)